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Strategic planning harnessing urban policy mobilities: the gradual development of local sustainability fix

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ABSTRACT

The aim of our article is to follow how global policy models affect local policy making. Each city has unique local challenges in promoting development, e.g. economic growth, but also needs to find a balance between these targets and demands for sustainable city solutions. In our empirical study, we follow how ideas of waterfront development – to attract new inhabitants and promote economic growth – and global demands of carbon control were used interactively in a strategic spatial planning process in the city of Tampere, Finland. During the six-year planning process, these two policy targets became interdependent, created a new policy-making domain, and led to a combinatorial development of sustainability elements arising from this domain. These findings demonstrate the serial use of global policy models in the creation of a local urban ‘sustainability fix’. To conclude, the intertwining of diverse global policy models in a city planning process creates easily a recursive cycle that redefines urban sustainability within cities and intercity networks. This perspective makes local policy narratives and strategic planning highly important in urban sustainability research as promoting urban sustainability becomes an inherently ambivalent practice.

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Sustainability fix; strategic planning; narrative; policy model; densification

Introduction

Our paper contributes to the discussion of how sustainability agendas develop in strategic planning under the influence of global policy models, leading to a local ‘sustainability fix’ (e.g. Long, 2016; Temenos & McCann, 2012). Sustainability fix means a political discourse and decision making through which cities use a selective promotion of sustainability targets, in order to accommodate both profit-making in global economic competition and environmental concerns in their development agendas (While, Jonas, & Gibbs, 2004). The concept has increased the understanding of how cities promote sustainability in local policy-making (e.g. Dierwechter, 2010; Jocoy, 2017; Long, 2016; Temenos & McCann, 2012).

To grasp a local sustainability fix, our starting point is that the contemporary increase in the availability of global policy models is resulting in new dynamics in local policy-making, also for urban sustainability (Prince, 2012). For instance, when a city adopts the global model of waterfront development, the local political discussion on urban development can change substantially in the direction where the diversity of local characteristics and interest disappears behind one grand narrative. Thus, local policy agendas are more and more translocal (Crivello, 2015; Peck & Theodore, 2010).

Our specific research task is to examine how these global ideas of urban development unfold locally under global demands for sustainability, especially that of carbon control. We illustrate the argument using a case

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study from the city of Tampere, which is one of the largest cities in Finland. The main issue of the city of Tampere strategic planning narrative has been to promote compact city development, required by both population growth and climate policy (City of Tampere, 2015). The vision is that a vital, attractive and competitive city can be achieved following the principles of low carbon sustainability. For example, by 2025, the carbon dioxide emissions are to decline by 40% from the level in 1990. The environmental targets are based on the Aalborg Commitments (2004) that the city of Tampere has signed. In 2007, the Tampere City Council accepted them as the basis of the city's sustainability programme (City of Tampere, 2013).

Our focus is on two different policy targets: demands of carbon control (Bulkeley, Broto, Hodson, & Marvin, 2011) and the idea to develop waterfront areas to promote economic growth (Desfor, Laidley, Stevens, & Schubert, 2011). We ask how the city created a sustainability fix from the interaction of these two different policy targets and legitimated the goals of strategic planning. We follow how the narratives concerning sustainability change were created and how they evolved in the strategic planning of a city centre development process.

The paper proceeds as follows. In the next section, we describe the theoretical starting points of our argument and combine the recent discussion on sustainability fix, policy mobilities and the objectives of strategic planning, and put together the foundation of our analysis. Following this, we turn to an empirical examination using a case study from the city of Tampere. We focus on three phases of the strategic planning process, analysing how the narratives used developed from the sustainability viewpoint. That section presents the core of the analysis concerning the processual development and intertwining of global ideas and local conditions. Finally, we discuss in our findings how detailed analysis of the process reveals the strategy-makers' contextual motives for implementing travelling policy ideas, related to their aims of keeping options open, legitimating strategic goals, and shaping the policy ideas accordingly.

Sustainability fix as a part of strategic planning narratives

Starting from the paper by While et al. (2004), the concept sustainability fix has increased the understanding that local policy-making for urban sustainability is crucially translocal (e.g. Dierwechter, 2010; Jocoy, 2017; Lang & Rothenberg, 2017; Long, 2016; Pirro & Anguelovski, 2017; Rosol, 2013; Temenos & McCann, 2012; Tretter, 2013; Vogel, 2016). In these studies, sustainability fix is analysed as a general goal for urban sustainability, considering the entrepreneurial character of cities. The cities and city-regions are part of the global competition but at the same time they cannot avoid promoting urban sustainability. Hence, the cities aim to accommodate both profit-making goals and a selective promotion of sustainability targets in their policy agendas. Previous studies have analysed sustainability fix also from specific perspectives of urban policy problems, such as local climate policy (Dierwechter, 2010), urban densification (Rosol, 2013), greening in urban regeneration (Lang & Rothenberg, 2017), and the social equity (Lang & Rothenberg, 2017; Long, 2016; Tretter, 2013). Even if most of these studies do not use specific narrative research methods, many of them recognise the importance of narrative aspect in creating the sustainability fix, most explicitly Temenos and McCann (2012) and Long (2016).

Many pathways are possible in navigating cities toward sustainability (Meadowcroft, 2007). In sustainability research, these pathways can be conceptualised as narrative trajectories. For instance, Luederitz, Abson, Audet, and Lang (2016) distinguish four archetypes of present transition narratives, which employ different system properties in sustainability transition: the green economy, low-carbon transformation, ecotopian solutions, and transition movements. Similarly, the background epistemologies of urban sustainability research, including their normative statements (Wolfram & Frantzeskaki, 2016), can be considered having a narrative structure. More conspicuously, narratives in urban policy-making are necessary in sustainability visions (Wiek & Iwaniec, 2014); it is essential that visions offer appealing images and storylines for stakeholders and decision-makers (Miller et al., 2014).

Transformation towards urban sustainability takes time, because conflicting perspectives and fragmented interests cannot be avoided in such processes. As highlighted in sustainability research (Miller et al., 2014; Wiek & Iwaniec, 2014), to provide a stimulus to change, it is important to explore the mechanisms that create coherence for the development of a sustainability vision and its implementation. However, creating coherence and making the process less contradictory does not mean that urban sustainability

visions should avoid complexity or abandon inherent tensions and heterogeneity (Wiek & Iwaniec, 2014). This is also one of the basic findings of studies on strategic planning (e.g. Albrechts & Balducci, 2013; Healey, 2004). Tensions and heterogeneity can be seen as resources for strategic planning to develop creative solutions for urban problems.

In our paper we examine how narratives are used in a strategic planning process, how they developed under two global policy models and created a local sustainability fix. Policy ideas and models are actively searched by cities in their strategic planning practices (Crivello, 2015; González, 2011). In solving contemporary urban problems in a highly changing world, statutory land-use planning is often inefficient, because it is designed for situations of stability and certainty (Albrechts & Balducci, 2013). Statutory planning has been interpreted to fail to help cities to be more responsive to dealing with emerging opportunities and uncertainties (Asikainen & Jokinen, 2009; Rauws & De Roo, 2016). Thus, strategic planning has been seen as a more suitable tool for managing rapid changes and uncertainties in the city development (Albrechts & Balducci, 2013; Sorensen, 2010; Stead & Meijers, 2009; Tewdwr-Jones, 2012).

Our starting point is that local adaptation of travelling global policy ideas is not trouble-free (Healey, 2007; Peck & Theodore, 2010; Prince, 2012; Stead, 2012). Beyond the concept sustainability fix, there is a wider theoretical discussion starting from the increased attention to the idea of policy transfer in urban policies in the 1990s (Cochrane & Ward, 2012). Later, the discussion moved on from linear transactions to a much wider and flexible notion of policy mobilities and mutations (McCann & Ward, 2011). This discussion emphasises that the global circulation of urban policies is necessary for urban policy-making, but the other side is that these globalised policies are also fundamentally local, grounded and territorial (Hamedinger, 2014; Healey, 2007). Urban policy mobilities are 'socially produced and circulated forms of knowledge addressing how to design and govern cities that develop in, are conditioned by, travel through, connect, and shape various spatial scales, networks, policy communities, and institutional contexts' (McCann, 2011, p. 109). These mobilised 'hot' policy ideas are, for instance, about the best way to build a 'liveable' and profitable city centre and waterfront and to build a dense city as a response to climate adaptation.

We see that the content of urban sustainability is finally created in city-specific political and development processes, though under the pressure of global competition between cities and under the influence of travelling policy ideas. As brought out by Long (2016), the mechanisms of how narratives work in these processes and create a sustainability fix is not addressed by previous research. While Long's case study examines the long-term development of a city's sustainability narrative, we analyse the mechanisms through which global ideas of urban development affect the narratives of strategic planning and create the local interpretations of sustainability.

Data and analysis

Tampere is the biggest inland city (230,000 residents) in the Nordic countries. It is well known for its history as the central site of industrialisation – particularly textile industries – in the nineteenth century Finland. The Tampere City Region (380,000 residents) is nowadays one of the main growth city regions in Finland. According to the sustainable visions of the city, it is important to improve the vitality and attractiveness of the city centre and solve traffic problems (City of Tampere, 2015). However, its location on an isthmus between two lakes, Näsijärvi and Pyhäjärvi, is problematic: the city centre has a very limited space for developing. Also the Tammerkoski Rapids between the lakes in the city centre are one of Finland's national landscapes because of their significance for Finnish industrial history.

The Tampere City Centre Development Programme started in 2010 with the objective of making an informal (non-statutory) strategic plan for the city centre. The programme was named *Five-Star City Centre*. We analysed the first six years (2010–16) of this strategic planning process, examining how narratives concerning sustainability were built and developed under two adopted global policy models (Table 1).

For our primary research task, the central part of document analysis has the focus on the three updated versions of the Five-Star City Centre approved by the City Board in 2011, 2013 and 2015¹ (see Table 1). For a

Table 1. Main events of the Five-star City Centre strategy process in Tampere, Finland, including the three phases when the city board approved a version of the strategy.

Date	Event
2009 Aug	City Strategy 2020 approved by the City Council
2010	City Centre Project started under control of the City Board (officially 2011 Jan)
2011 Dec	Phase 1: Threats and development projects Strategy document 1 approved
2011 Oct	Ranta-Tampella detailed plan approved by the City Council (ratified 2013 Sep)
2013 May	Phase 2: Lakeside City Strategy document 2 approved
2013 Aug	City Strategy 2025 approved by the City Council (with 4 appendices 2013 Dec)
2013 Sep	Tunnel project approved by the City Council (ratified 2013 Sep)
2014 May	Eteläpuisto planning competition winners selected by the city
2015 Nov	Phase 3: World-class centre Strategy document 3 approved
2016 Nov	Tramline approved by the City Council

secondary material, we utilised 12 other background documents prepared by the city planning officials to support the strategy-making process between 2011 and 2015. In addition, we conducted nine interviews with key planning officials and designers in 2016–2017. In the interviews, we focused especially on the Five-Star City Centre strategy, its key objectives and how the process developed during 2011–2016. The interviews aimed at mapping the strategy-making process and its relation to the adaptation of global policy ideas and how these ideas would build the local sustainability fix. To increase our understanding of the process, we also participated in two expert seminars in 2013 (workshops, some 100 participants) arranged by the city for the preparation of the strategic plan for the city centre.

Using document analysis and interviews, we explored how the primary goals of the Five-Star City Centre were derived from the visions of the City Strategy, from the sectoral strategies and the data collected by the city, and how they were then operationalised and formulated in the Five-Star City Centre documents. We selected waterfront areas of the city as a detailed example of the primary goals of the Five-Star City Centre. We analysed how the waterfront areas were developed during the process, how they were supported by the narrative and the sequences, and labelled as Lakeside City. Our particular aim was to examine how the relationship between carbon control (specified as urban densification and traffic solutions in the plan) and waterfront areas developed during the strategy process and how these two global policy ideas fed each other in the narrative creation of sustainability fix.

As narrative analysts have shown, storytelling is a principal way of constructing shared meanings, providing a plot that helps to define operational solutions (Boyce, 1995; Hajer & Laws, 2006). The Five-Star City Centre project was thoroughly documented, which enabled us to follow how the narratives developed and affected the six-year planning process and the contextual dynamics. For the documents, as well as for the interview data, we conducted narrative analyses (Roe, 1994; Van Eeten, 2007), starting from ideographs. Ideographs are connotative, symbolic material expressing a particular perspective in policy discourse embedded in stories and narratives (Miller, 2012). The context of an ideograph reveals how the narrative changes over time. In this planning process, ‘population’ was the primary ideograph and received various interpretations in sequential plans (the approved strategy versions 2011, 2013 and 2015). In fact, all the plans were made to tackle the estimated (and hoped) population growth in a feasible way. Since population growth is one of the most important goal in competition between the cities, it was a ‘natural’ dominating narrative. Storyline is a useful analytic concept to unpack complex policy domains and goals. In a policy-making process, a storyline is a tool through which actors from different backgrounds and interests can relate to without necessarily understanding each other (Hajer, 1995). This is why our analysis focuses also to identifying different storylines under the grand narrative of population.

We first describe how the ideograph of ‘population’ developed and defined the main narrative during three phases of the planning process in Tampere. We then focus on the culmination of the planning process, a new city image that was named Lakeside City, and analyse the sustainability storylines that constitute this image under the grand narrative of population growth. We see that the storylines were crucially balancing between the policy models of carbon control and waterfront development.

Phases of the strategic planning process

Phase 1: Threats and development projects (2011 December)

The goal of the strategy was to create a concept for the future land use and traffic in order to increase the economic vitality and liveability of the city centre. The name of the strategy, Five-Star City Centre, was based on a five-dimensional vision, derived from the goals of the City Strategy 2009: the city centre (1) is dense, urban and based on intensified public transport; (2) has high quality urban environments; (3) has multiple services; (4) serves as an economic engine with strong competitiveness; and (5) has a strong image (Strategy version, 2011, pp. 5–6). Hence, from the sustainability viewpoint, this vision emphasises a dense urban structure with liveable environments, traffic solutions and economic vitality, including competitiveness.

The narrative started by defining the following threats: despite the increasing urbanisation in the city region (estimated 90,000 new inhabitants until 2030), the population projection showed that the city centre (now 40,000 inhabitants) would stop growing in the near future. Simultaneously, the number of private cars seemed to continue to grow, the city centre would lose commercial attractiveness, and as a result, its quality as a living environment would suffer. The conclusion was clear: without a response to these threats with development projects and a new strategy, the vitality of the city centre would be lost (Strategy version, 2011, pp. 3–4).

The key development projects² included:

- (1) The Rantaväylä tunnel was a traffic plan to reroute one of the busiest highway sections in the country into a tunnel (more than 2 km) under the Tammerkoski Rapids. The plan removed traffic from the shoreline of Lake Näsijärvi and enabled the construction of a new residential district of Ranta-Tampella (about 3600 new residents) at the waterfront.
- (2) The Eteläpuisto Park at Lake Pyhäjärvi was another new site for the waterfront development.
- (3) Public transport, underground parking spaces and a tramline plan were emphasised.
- (4) Two districts for urban densification were specified: Tammela and Amuri.
- (5) The Tampere Central Deck with skyscrapers and Sports Arena: a new world-class business and commercial area on top of the railway tracks.

The national urban landscape of the Tammerkoski Rapids and the city parks were singled out as the core identity of the city, which should be strengthened. Gaining the status of National Urban Park or World Heritage Site for this exceptional combination of green space and industrial legacy would be important for the city image and should be explored.

During the first phase of strategy-making, the development projects were merged with the targets of population growth, vitality and urban densification (Strategy version, 2011, pp. 4–7; 9–11). These targets were in line with the carbon policy the city was committed to. A consistent line of decisions can be identified from the city's top-level acceptance of the Aalborg Commitments in 2007 to the adoption of climate policy targets and dense urban structure as one of the main goals of City Strategy in 2009, to the large-scale programme of Eco-efficient Tampere 2020 (ECO2) starting from 2010, and to the adoption of low carbon principles in all spatial planning projects of the city. Hence, the city has long engendered systemic change towards low carbon transition (Bulkeley et al., 2011). At the time of strategic planning for the city centre, carbon control was self-evidently the primary environmental goal of spatial planning. Following City Strategy, urban densification, traffic solutions and other low carbon goals to reconfigure the urban structure took the dominating position in the plan. Planners illustrated this policy change and the simultaneous shift toward more strategic spatial planning by saying that 'we nowadays carefully examine what is really said in City Strategy and translate it to the sphere of land use' (Planner 6).

Phase 2: Lakeside City (2013 May)

Since the first phase, uncertainties had accumulated in the strategy process. The schedules of the development projects could not be managed by the strategy work, and at the same time, some of the projects became

contested. First, the Rantaväylä traffic tunnel already had a long conflicted history. A reservation for the tunnel was made in land use planning in 1995, and the City Council accepted the tunnel project in 2007, which main aim was to move a freeway away from waterfront development area to the tunnel. However, a protest movement collected enough names for a referendum initiative in 2009 and demanded the city to hold a local referendum on the tunnel. The city rejected the referendum demand. The tunnel was a large financial investment, and after many contested stages, the City Council finally voted 36–30 in favour of the tunnel in September 2013. After the tunnel solution, the tramline plan became particularly problematic for the decision makers, because its budget was even higher than the costs of the traffic tunnel. The debate over the tramline lasted for years. The City Council finally approved the tramline proposal in November 2016. These traffic solutions were crucial elements of the centre's sustainability narrative, as they enabled the city to utilise the urban space and shorelines effectively and in multifunctional ways.

The Eteläpuisto Park, by the shoreline of Lake Pyhäjärvi, became the third significant contended case. The area had been designated as a park in the 1830s and later on implemented as the southern component of a park-esplanade-park ensemble extending from lake to lake across the city. Hence, the Eteläpuisto Park is a historical nexus of the green space network of the city and a strategic connection point of the shorelines of Lake Pyhäjärvi. Although valued in many plans and inventories, the place had been left underdeveloped as a park during recent decades. In the City Centre strategy, the park was designated for urban infill. In 2013, the city launched an international planning contest for implementation ideas. The winning plan (2255 inhabitants) exceeded the targeted volume of residential infill originally set in the competition programme (1300–1800 inhabitants). The conflict intensified between the city and the residents even though some residents supported the plan. The city, university researchers and professional dialogue facilitators made a vigorous attempt at mediation, but the noisy protest movement continued. The conflict is still unsolved at the beginning of 2018. The conflict was an important context for narratives in strategic planning, as it strongly dominated the debate on the city centre's future. It also raised questions about the relationship between urban green and densification and about the political nature of urban shorelines.

A new image, *Lakeside City*, was introduced into the strategy. In 2011 paper, this concept didn't exist. The updated version 2013 (p. 11) introduced the concept as follows:

The shore areas of Lakes Näsijärvi and Pyhäjärvi form a natural continuation of the current city structure. Most of the housing production (required by a growing population) will be located in these areas. Living by the lakes' shores will raise the city centre's profile as a residential area along with Tampere's profile as a lake-side city.

This narrative shift responded to the uncertainties and contradictions that remained in the strategy process. Central to the image was the idea that the shorelines of Lake Näsijärvi and Lake Pyhäjärvi made Tampere an internationally unique city. The shorelines that were previously reserved for industrial use and traffic should now be taken for new housing, recreational routes and leisure services. In this new role, the shorelines would serve as an active part of the city centre. In contrast to the first phase, the Tammerkoski Rapids were no longer emphasised, and National Urban Park and World Heritage Site were not mentioned at all as they did not offer any potential for urban infill.

The population and job forecasts presented in the urban development plan for the Tampere Central Region 2030 cannot be accommodated by complementary construction alone. As the desired aim is to promote the vitality and attractiveness of the city centre and complementary construction possibilities are limited, it is necessary to utilise the possibilities provided by extending the city centre. The most significant of these possibilities are the shores of Lake Pyhäjärvi and Lake Näsijärvi and the railway yards. (Strategy version, 2013, p. 10)

In this formulation, the population growth for the city centre, 10,000 new inhabitants, became an active agent in the narrative and demanded taking lakesides for construction. Hence, the 'population' as an ideograph (Miller, 2012) made the narrative work in a new context.

Visioning is the point of strategy-making ... but the vision may change, too, over time. Perhaps the key is that we have visionaries among the city leaders ... I think that every resident in Tampere will be quite pleased if we are able to make all the lake-sides accessible to them. (Planner 1)

As a result, the image of Lakeside City became a positive attractor in the strategy. It was mentioned throughout the 2013 strategy paper in five different contexts. It was a feasible phrasing because of its connection to water and the city's history, but it also worked as a general level idea and lifted the discussion above contested issues, such as the heated political debate on the Eteläpuisto Park.

The concept of Lakeside City was a global policy model, which the city planners integrated as a part of the city's land-use strategy. Instead of a single event of policy transfer or benchmarking, the interviewees mentioned several international cases, which gave inspirations to this model. Most important international comparisons were Stockholm, Malmö and Copenhagen (including brownfield projects at the waterfront), which the Tampere city planning officials, other civil servants and decision-makers visited several times when preparing the land-use projects in the city centre. Moreover, the city started to use international planning competitions in these projects. The interviewees saw that these field visits and competitions gave space for international ideas to affect the Tampere planning strategy. International cases from several cities were also used as material in expert workshops during strategy making.

Phase 3: World-class centre (2015 November)

A new narrative turn took place in 2015. The national landscape of the Tammerkoski Rapids was given prominence again and merged into the image of Lakeside City. Global references were at play in this fusion. Manchester had always been the symbolic reference of the industrial landscape of the Tammerkoski Rapids and Tampere in national image-building. However, the global reference changed in 2015, as the strategy boldly claimed: *Tampere is becoming an internationally unique lakeside city* (2015, p. 10).

The strategy linked the city more tightly to global ideas of waterfront cities. Lakeside City retained its role as the leading image in the strategy. The lakeside city and the importance of shorelines were mentioned in the 2015 document 22 times. There was a chapter 'Lakeside City' explaining the importance of the concept:

The shore areas of Lake Näsijärvi and Lake Pyhäjärvi will form a natural continuation of the current city structure. A large part of the housing required by the growing population will be located in these areas. Living by the shores will promote the city centre's attractiveness as a housing area and Tampere's profile as a lakeside city. Amongst the key projects are the housing areas of Ranta-Tampella, Eteläpuisto and Viinikanlahti. The shore areas and the views by the shores will also be developed to meet the needs of tourism, recreation, and the production of events. (2015, p. 18).

Besides the chapter Lakeside city, there was later another independent chapter devoted to the role of lakes and shores (2015, p. 36): *The lakes and the shores are the city centre's strengths. The attractiveness of the shores will be increased by improving their recreational services and accessibility.*

The strategy was strongly visualised in this version, including a marketing video which presented the urban model that was created. From the 27 images of the document, 10 were highlighting the shores of the city.

Compared with the second phase, the population target of the strategy was increased by 50%, now at 15,000 new inhabitants, which is 'really big, considering that only some hundred incomers have annually settled in the city centre' (Planner 6). 40% of them would be placed on the shorelines. Some of the planners interviewed criticised the new housing areas that would be constructed at the waterfront. It was evidenced (Strategy version, 2015, p. 10) that there would still be 20 centimetres of shoreline for each resident, because the total shoreline in the city centre amounts up to 10 kilometres. The main principle was to make lakesides a part of the city centre. More emphasis than previously was paid to ecological networks from the centre to the surrounding areas. It was mentioned that the green areas elsewhere in the city were highly important for people of the city centre, and the series of waterfront districts in the city continued outside the centre along the two lakes.

The development projects and other key components remained in the strategy, yet uncertainties in implementation remained. The strategic highlights that started to take shape in the second phase could be now summarised as follows: Tampere will be a Lakeside City with a world-class city centre, which is commercial and has a spectacular Tammerkoski Rapids landscape with an interesting industrial history.

Furthermore, the text (2015, p. 15) highlighted that the strategy would make *the urban structure more compact, which strengthens competitiveness and a sense of community*. As an ideograph, 'population' served both of

these goals, as it was now emplaced and specified in new ways: it became the source of human life and vitality. This shift resulted from the fact that the three thematic sections of the strategy (traffic and transport; construction; green areas and outdoor spaces) were now complemented with three new ones: urban culture, events and tourism; housing and lifestyle; and business and knowhow.

I would say that these three new themes are the operational environment of the strategy. I feel this aspect should be included because the life of companies and residents is there, in a way. (Planner 1)

This way ‘population’ became entirely functional and the source of vitality for the city centre, when it was posed to carry out specific duties for all six themes of the strategy. Hence, ‘population’ was now spread over the city and specified into details, distinct planning concepts, flows of action, and the visualised patterns of the strategy report.

The journey of ‘population’ since the first phase demonstrates the narrative development of the strategy-making process. Being first a deficit that should be resolved, ‘population’ then became an agency that had demands for land use, and finally, it fulfilled every detail of the strategy and vitalised it. This narrative development was significant, as it started from the principle of carbon control and ended in waterfront development, creating a new policy domain between them. This policy domain multiplied the potential sustainability storylines available in strategy-making and the possibilities to legitimate the strategy by sustainability arguments. Next, we examine what kind of sustainability storylines emerged in the process and how these storylines created ties between the policy models of carbon control and waterfront development. All the storylines supported the grand narrative, the superior image of Lakeside City.

The image of Lakeside City connecting different storylines

The image of Lakeside City created in the strategy process includes five sustainability storylines (Figure 1). The strategy documents show that all of them take part in the same narrative, creating the image of Lakeside City. To further explore this narrative construction, we analyse whether and how the sustainability storylines legitimate the strategy and start building a sustainability fix. The power of these storylines comes from the fact that the image of Lakeside City was a result of the six-year narrative-building in which ‘population’ was fully functionalised.

The image provides legitimation for strategic planning by aggregating five sustainability storylines. The storylines indicate transaction between two global policy models adopted by the city: carbon control and waterfront development.

It can be seen that the storylines legitimate the strategy by using the elements of sustainability fix. The storylines (see numbers in Figure 1) refer to social sustainability (2, 3), profit-making (4), city marketing (2, 5), and repairing environmental damage caused by traffic routes at the waterfront (1). The storyline ‘Houses for residents; business for constructors and investors’ (4) supported urban densification as the city’s most important

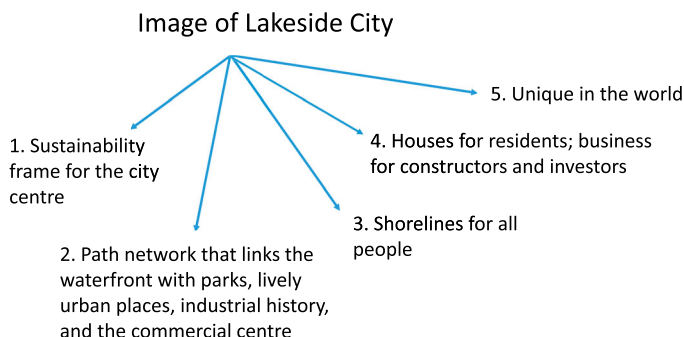


Figure 1. Narrative structure of the image of Lakeside City.

sustainability goal. The main assumption in the Five-Star City Centre Strategy and its background documents was that dense cities are more sustainable because they save energy, use less land for construction, need less traffic for daily use, and enable better public transportation. The storylines created a two-way connection between the image of Lakeside City and urban densification. Urban densification as a basic sustainability solution reduces open space but the storylines emancipate it (2, 3). This, in principle, may make urban densification more acceptable.

Hence, the storylines connect two global policy models adopted by the city – waterfront development and carbon control – and make them functionally interdependent. In doing this, the storylines create space for new combinations of urban sustainability. The number of possible combinations is almost uncountable. One reference point is that the final strategy includes a list of the 88 most important urban development projects in the city centre for the next five years, and the list will be continuously updated. The projects range from eco-efficient solutions in construction to new recreational routes, from diverse urban places and event venues to many others.

Moreover, the storylines together create an image of systemic solutions of urban sustainability (1, 2). For instance, the ‘Sustainability frame storyline’ (1) gave a strong focus on the waterfront development creating a framework for the whole sustainability idea of the strategy, originating in the carbon policy and urban densification. This storyline emphasises, for instance, that by expanding the centre from lake to lake, the city is able to develop a compact city structure, lively urban life and communal values. What was not mentioned in the strategy was that by concentrating an efficient housing construction on the city-owned land at the waterfront, the city would enjoy economic benefits. Receiving revenue from sales and land use, the city is able to balance its budget but also to attract better taxpayers and companies to the city.

Another example, the ‘Path network storyline’ (2), links the waterfront with other areas of the centre, creating a long series of interconnected public outdoor areas in the city centre, and supporting a city for pedestrians and cyclists. The foot and cycling path network was strongly emphasised in the strategy, and as a storyline, it brought mobility and connectivity into the image of Lakeside City. The storyline of foot and cycling path networks also links the economic aspect of sustainability to Lakeside City. In this storyline, commercial services, tourism, the competitive identity of the city, business opportunities, and consumerism are clearly stated goals.

Discussion

Following the sequential development of the strategic planning process revealed the interplay between old and new ideas in the city. This interaction between old and new ideas decisively affected the production of a sustainability fix. Lakeside City was a necessary local adjustment of an imported policy model of waterfront development, an extralocal resource mixed with local resources. In the strategy process, it was an argumentative resource emanating from transnational planning ideas (Crivello, 2015; González, 2011; Healey, 2007; McCann, 2011) and resulting in the main sustainability image of the strategy. As pointed out by Temenos and McCann (2012), such combination of extralocal and local resources can legitimate specific types of policy solutions, and also enable ongoing learning in which local politics is always extralocal in various ways.

The relationship between carbon control and waterfront development was the focus of our analysis. The carbon-waterfront interaction was a result of an unexpected process in which temporal aspects, legitimisation, image-building, power conflicts, and self-organisation affected the management of uncertainties and shaped the sustainability fix. While urban densification with traffic solutions was still the main environmental goal of the strategy, waterfront development allowed a strong increase of new residents. The carbon-waterfront interaction enabled the multiplication of sustainability elements, thereby providing sustainability legitimisation for the strategy.

The evolution of the ideograph ‘population’ became an ‘organising force’ (Miller, 2012, p. 36) that created a new domain for policy-making, revealed the narrative-making of the strategy and how this development enabled the sustainability storylines that wove connections between carbon control and waterfront development.

More evidently, the carbon-waterfront interaction could be found in the sustainability storylines that all supported the grand narrative of Lakeside City (Figure 1). The Aalborg Commitments (carbon control) and the fundamental turn in the planning focus (waterfront development) in the middle of the planning project found each other in these storylines. As a result, these 'causal storylines' (Miller, 2012, p. 36) stabilised the decision-making environment in the face of uncertainties and, simultaneously, created space for innumerable possible combinations of different sustainability solutions in urban development. The storylines diverted peoples' attention from the negative impacts of urban densification and the contested key development projects and paved the way for a substantial (38%) population increase in the city centre.

To date, the sustainability fix has been studied from several perspectives, emphasising both material and discursive dimensions of the concept (e.g. Dierwechter, 2010; Jocoy, 2017; Lang & Rothenberg, 2017; Long, 2016; Pirro & Anguelovski, 2017; Rosol, 2013; Temenos & McCann, 2012; Tretter, 2013; Vogel, 2016; While et al., 2004). We see that it is also utterly important to analyse how locally adopted policy models interact in shaping sustainability fix in urban policy-making. Our findings illuminate this interaction, which we consider to be increasingly relevant in the era of translocal policy-making (e.g. Crivello, 2015; McCann & Ward, 2011; Peck & Theodore, 2010; Prince, 2012). We demonstrated how the local sustainability fix is constituted by (1) the consecutive adoption of global policy models, (2) the narrative creation of a new policy-making domain between the adopted policy models, and (3) the combinatorial development of sustainability elements arising from this domain. In the Tampere case, the narrative work functionalised the 'population' during the policy-making process and made the two adopted policy models functionally interdependent. As a result, the city's interactive use of two global policy models intensified the fix between demands of carbon control and the promotion of economic growth.

These findings show how narrative persuasion changes the technical framings in the emergence of a sustainability fix (Temenos & McCann, 2012) and deepen the understanding how the narrative and the technical are intertwined in this process. The term technical emphasises that a sustainability fix and related policy models are not only ideological; technical practices are needed to incorporate them into problem framing and policy response. The Tampere case highlights the stimulus to change and the criticality of momentum, which are crucial in strategic planning (Albrechts & Balducci, 2013) and in transformation towards urban sustainability (Miller et al., 2014; Wiek & Iwaniec, 2014). More broadly, time was a crucial factor in this strategy process (see Healey, 2007). The six-year project with its three phases provided the dynamics in which sequential strategy-making was possible and increased the opportunities for legitimisation, thus creating new combinations of possible solutions, enhancing the possibilities to respond to conflicts and other uncertainties, and increasing the overall flexibility of the process. In this process, the political aim of growth reinforced sustainability targets, and the goals of sustainability and competitiveness were, more or less, intertwined.

Our analysis illustrates the possibility of the emergence of novel sustainability solutions during strategic planning processes. The need for achieving legitimisation, creating narratives and producing an image for the city brought together both global ideas of sustainability and local contextual elements, which together created new reconfigurations and opportunities for urban sustainability. This productive aspect of a sustainability fix combined relationality and fixity (McCann & Ward, 2011). However, there is no guarantee that it was productive from the urban sustainability point of view. The strategy in Tampere primarily focused on demographic, technical (urban structural) and economic goals of urban sustainability. These are also usual sustainability goals of cities in other studies of urban sustainability (John, Keeler, Wiek, & Lang, 2015). The strategy work here considered the city an urban system, which can be particularly seen in the second (2013) and the third strategy version (2015), and thus created suitable conditions for a more progressive sustainability policy.

However, the sustainability goals remained ambivalent. Most strikingly, lifestyle issues were poorly handled, as the dominating aim of the strategy was to increase consumption. Compared to the agenda of carbon control, Lakeside City was an appealing and necessary concept for legitimating the sustainability target of the strategy. With it, urban sustainability was gradually reshaped as a policy target to legitimate diverse strategic goals related to large-scale, property-led urban development. This is opposite to the conventional ideal of a policy-making process for sustainability, in which a vision and policy goals are first defined and then implemented (John et al., 2015). In principle, the emergence of Lakeside City was a moment where 'strategy' stands in opposition to

‘project’: the former is ready to change the course of action according to new information, the latter operates in a stable environment and does not require such vigilance (Faludi, 2000, see also Morin, 2008). An intense image-building made Lakeside City to emerge, and it became the main focus of the strategy work. Pressure for legitimation is typical of preparing a strategic spatial plan, which requires legitimation to be workable (Mäntysalo, Jarenko, Nilsson, & Saglie, 2015). It was unavoidable that the goals of interurban competition and sustainability shape each other in urban policy-making. This created a wider context for legitimation.

Conclusion

When analysing the sustainability fix or other translocal phenomena, it is necessary to find ways of examining how it is that global policies find their expression and are given particular meaning in grounded, localised ways and how they are translated through local dynamics (Cochrane & Ward, 2012). In this paper, building a new image for the city was a culmination point in the six-year process of strategic spatial planning. The local sustainability fix developed through (1) the consecutive adoption of two global policy models by the city, carbon control and waterfront development, (2) the narrative creation of a new policy-making domain between these two policy models, and (3) the combinatorial development of sustainability elements arising from this domain. During the process, the strategy received its life from the narrative making of ‘population’ and its legitimation by sustainability storylines.

Based on our findings, we claim that cities’ serial adoption of global policy models gives rise to the development that sustainability fix is constantly in the making in cities. The intensification of sustainability fix during strategic planning becomes a particular resource for a city by generating new policy-making domains and combinatorial sustainability elements between the adopted policy models. This development is recursive (see Morin, 2008), meaning that policy models build cities, and cities maintain policy models, renew and circulate them. When adopted, policy models are not only products of interurban policy-making but become locally causal and productive when they interact and are converted functionally interdependent, which makes them stronger constituents of urban development. The new policy-making domain in our conceptual model arises narratively from this interaction and describes *the local recursive cycle in translocal policy-making*.

The sustainability fix combines relationality and fixity in a productive way. Combinatorial sustainability elements serve strategic opportunities, as they can be configured for fresh purposes. Economic and technical thinking in urban policy-making prefer standard scenarios, such as consumption-oriented lifestyle in the Tampere case. On the other hand, the same resources can be used for transformative policy-making for urban sustainability.

Notes

1. The strategy versions were available on the city’s home page of the strategy project. For the English summary of the final version of the strategy, see City of Tampere (2015). The city centre strategy was finally turned into a statutory plan approved by the City Council in 2016, but this did not change the key goals of the strategy, which was also confirmed by the interviewees.
2. In 2017, projects number 1, 3 and 4 had proceeded into the implementation phase.

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